

REMARKS/ARGUMENTS

Claims 1-6 stand rejected in the outstanding Official Action. Claims 1 and 6 have been amended and therefore claims 1-6 remain in the application.

The Examiner's acknowledgment of Applicants' claim for priority and his receipt of the priority document is very much appreciated. Additionally, the Examiner's indication of PTO acceptance of the previously filed formal drawings is appreciated. Finally, the Examiner's consideration of the prior art listed in Applicants' previously filed Information Disclosure Statement is appreciated.

In section 1 of the outstanding Official Action, the title of the invention is alleged to be non-descriptive. Applicants have amended the title to more clearly recite the subject matter of the claimed invention. However, Applicants are not wedded to any particular title language and should the Examiner have another suggestion which he believes is more appropriate, Applicants will certainly consider any proposal.

Claims 1-5 stand rejected under 35 USC §102 as being anticipated by Buhrer (U.S. Patent 5,132,822). Applicants have amended independent claims 1 and 6 to place them more in consistence with U.S. claim practices. Additionally, Applicants note that the polarization splitting device splits each of the first and second unpolarized light inputs into refracted and reflected polarized components. Applicants' original claim language specifies that each of the electro-optical switches are "positioned in the paths of said refracted and reflected polarised components" of their respective light inputs.

The Examiner alleges on page 3, section 4 of the Official Action, that Buhrer teaches "a first electro-optical switch (10, 46) positioned in the paths of said refracted (61) and reflected

(69) polarized components of said first light input.” In fact, this is **not** believed to be the case in the Buhrer reference.

Looking at Buhrer in Figure 3, a first input beam 30 is split by interface 34 into components 50 and 59 (Buhrer column 4, lines 64-67). However, even though component 50 does impinge on optical switch 10, component 59 clearly does **not** impinge upon optical switch 10. Thus, only one of the two components in Buhrer from the first input beam 30 impinges upon optical switch 10. Therefore, Buhrer does not meet Applicants’ claim language of “a first electro-optical switch positioned in the paths of said refracted and reflected polarised components of said first light input.”

The second input beam 31 is split by splitter 35 into optical beam 51 and unnumbered optical beam between element 35 and 71. Only beam 51 from splitter 35 contacts the second optical switch 11 and therefore the second electro-optical switch in Buhrer is not “positioned in the paths of said refracted and reflected polarised components of said second light input.”

The Court of Appeals for the Federal Circuit has noted in the case of *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick*, 221 USPQ 481, 485 (Fed. Cir. 1984) that “[a]nticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim.”

Applicants’ independent apparatus claim 1 (as well as method claim 6 reciting the splitting of each inputs into refracted and reflected components and then specifying recombining of the first input refracted and reflected components) is clearly not present in Buhrer Figure 3. A review of Buhrer’s Figure 4 also shows that input 40 is split by splitter 44 into beams 60 and 69. While beam 60 contacts optical switch 10, beam 69 **does not** and instead is diverted to optical

switch 11. Thus, neither the subject matter of Figures 3 or 4 disclose Applicants' claim 1 and claim 6 combinations of elements and steps, respectively.

Should the Examiner believe that Buhrer somehow teaches Applicants' claimed invention, he is respectfully requested to identify the first and second input beams, the splitters and the corresponding portions of the first and second input beams from the splitters and demonstrate how both beams resulting from a single input impinge upon the respective electro-optical switch which is "positioned in the paths of said refracted and reflected polarised components" of the respective input. The Examiner's statement that Buhrer shows "a first electro-optical switch (10, 46) positioned in the paths of refracted (61) and reflected (69) polarized components of the first light input" **is incorrect**, as the first electro-optical switch 10 is **only** positioned in the path of light 60 and **not in the path of light 69**. Accordingly, Buhrer does not disclose all structural elements of Applicants' independent apparatus claim 1 or independent method claim 6.

It should also be noted that because Buhrer teaches an electro-optical switch which is positioned in the path of only one of the split beams from the first light source and in the path of a component split from a second light source, Buhrer clearly teaches away from Applicants' claimed combination of elements. Therefore, any future rejection under 35 USC §103 over Buhrer is respectfully traversed.

The Examiner alleges that claim 6 is anticipated by Baker (U.S. Patent 4,784,470) under 35 USC §102. Again, the Examiner alleges that Baker teaches transmitting both the "refracted and reflected components of said first input to a first electro-optical switch." Yet in Baker's Figure 1 (which is the figure referenced by the Examiner in section 10 on page 4 of the Official

Action), the first input 20 is split by structure 12 so that the solid line portion passes through first electro-optical switch 16, but the second dotted line component from input 20 passes through the second electro-optical switch 18 and **not the first electro-optical switch 16.**

Not only does Baker fail to disclose Applicants' claimed transmitting step of "transmitting said refracted and reflected components of said first input to a first electro-optical switch," Baker actually teaches away from the claimed subject matter and, like Buhrer, suggests that a portion of one input light beam is split and then deflected to two separate electro-optical switches.

Accordingly, in view of the above, neither the subject matter of independent claim 1 (and claims 2-5 dependent thereon) nor method claim 6 is disclosed by either the Buhrer or Baker references. Moreover, both Buhrer and Baker would lead one of ordinary skill in the art away from Applicants claimed combination of elements, i.e., they would teach input light being split into components which impinge upon different electro-optical switches rather than the same electro-optical switch. As a result, claims 1-6 cannot be anticipated or rendered obvious by either the Buhrer or Baker references.

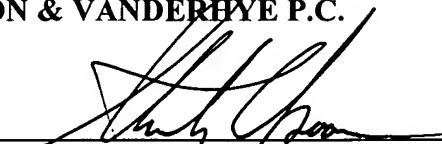
Having responded to all objections and rejections set forth in the outstanding Official Action, it is submitted that claims 1-6 are in condition for allowance and notice to that effect is respectfully solicited. In the event the Examiner is of the opinion that a brief telephone or personal interview will facilitate allowance of one or more of the above claims, he is respectfully requested to contact Applicants' undersigned representative.

GREENWAY et al.
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Respectfully submitted,

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